OIPE

RAW SEQUENCE LISTING   DATE: 09/21/2001
PATENT APPLICATION: US/09/945,254   TIME: 20:48:55

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\09212001\I945254.raw

ENTERED

```
 4 <110> APPLICANT: Meyers, Rachel
 5        MacBeth, Kyle
 6        Tsai, Fong-Ying
 8 <120> TITLE OF INVENTION: 8797, A NOVEL HUMAN
 9        GALACTOSYLTRANSFERASE AND USES THEREOF
11 <130> FILE REFERENCE: MNI-188
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/945,254
C--> 13 <141> CURRENT FILING DATE: 2001-08-31
13 <150> PRIOR APPLICATION NUMBER: 60/229,829
14 <151> PRIOR FILING DATE: 2000-08-31
16 <160> NUMBER OF SEQ ID NOS: 3
18 <170> SOFTWARE: FastSEQ for Windows Version 4.0
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 4052
22 <212> TYPE: DNA
23 <213> ORGANISM: Homo sapiens
25 <220> FEATURE:
26 <221> NAME/KEY: CDS
27 <222> LOCATION: (459)...(1592)
29 <400> SEQUENCE: 1
30 ccaagattta aagcccgcaa gttttgttct tgagaccagc gactttagct ccgatgcggg 60
31 aaggaaagcc gacctccgat ttggacattt aaagagctgg gcttgaactt cgtgagtttc 120
32 gctctaaact gcccttgaaa tgaagctgga cttggaggtg gcatggaata ttcacatggg 180
33 agagccgcat gaggccgccc accacgcttc ctgaaggatg cccgtgtgga agaattttga 240
34 cgtgccagtg tcctcgttct acagggtgtt ccattcttcc gcaatctcag aaaaatggga 300
35 ctaaaagaaa ctattttgta aaataagaag acttccattt ttaatgacca acatgtatta 360
36 agatggacac ctactctacg aaacacgaag ttctatggtc tcgaagaagc ccgtgcctgt 420
37 ttaaaactga tcctaactaa aaacagactt gagtggat atg aga atg ttg gtt agt 476
38                                              Met Arg Met Leu Val Ser
39                                               1               5
41 ggc aga aga gtc aaa aaa tgg cag tta att att cag tta ttt gct act 524
42 Gly Arg Arg Val Lys Lys Trp Gln Leu Ile Ile Gln Leu Phe Ala Thr
43              10              15              20
45 tgt ttt tta gcg agc ctc atg ttt ttt tgg gaa cca atc gat aat cac 572
46 Cys Phe Leu Ala Ser Leu Met Phe Phe Trp Glu Pro Ile Asp Asn His
47          25              30              35
49 att gtg agc cat atg aag tca tat tct tac aga tac ctc ata aat agc 620
50 Ile Val Ser His Met Lys Ser Tyr Ser Tyr Arg Tyr Leu Ile Asn Ser
51      40              45              50
53 tat gac ttt gtg aat gat acc ctg tct ctt aag cac acc tca gcg ggg 668
54 Tyr Asp Phe Val Asn Asp Thr Leu Ser Leu Lys His Thr Ser Ala Gly
55  55              60              65                  70
57 cct cgc tac caa tac ttg att aac cac aag gaa aag tgt caa gct caa 716
58 Pro Arg Tyr Gln Tyr Leu Ile Asn His Lys Glu Lys Cys Gln Ala Gln
59              75              80              85
61 gac gtc ctc ctt tta ctg ttt gta aaa act gct cct gaa aac tat gat 764
62 Asp Val Leu Leu Leu Leu Phe Val Lys Thr Ala Pro Glu Asn Tyr Asp
```

RAW SEQUENCE LISTING   DATE: 09/21/2001
PATENT APPLICATION: **US/09/945,254**   TIME: 20:48:55

Input Set : **A:\Seqlist.txt**
Output Set: **N:\CRF3\09212001\I945254.raw**

```
63                 90                 95                 100
65 cga cgt tcc gga att aga agg acg tgg ggc aat gaa aat tat gtt cgg    812
66 Arg Arg Ser Gly Ile Arg Arg Thr Trp Gly Asn Glu Asn Tyr Val Arg
67         105                110                115
69 tct cag ctg aat gcc aac atc aaa act ctg ttt gcc tta gga act cct    860
70 Ser Gln Leu Asn Ala Asn Ile Lys Thr Leu Phe Ala Leu Gly Thr Pro
71     120                125                130
73 aat cca ctg gag gga gaa gaa cta caa aga aaa ctg gct tgg gaa gat    908
74 Asn Pro Leu Glu Gly Glu Glu Leu Gln Arg Lys Leu Ala Trp Glu Asp
75 135                140                145                150
77 caa agg tac aat gat ata att cag caa gac ttt gtt gat tct ttc tac    956
78 Gln Arg Tyr Asn Asp Ile Ile Gln Gln Asp Phe Val Asp Ser Phe Tyr
79                155                160                165
81 aat ctt act ctg aaa tta ctt atg cag ttc agt tgg gca aat acc tat   1004
82 Asn Leu Thr Leu Lys Leu Leu Met Gln Phe Ser Trp Ala Asn Thr Tyr
83         170                175                180
85 tgt cca cat gcc aaa ttt ctt atg act gct gat gat gac ata ttt att   1052
86 Cys Pro His Ala Lys Phe Leu Met Thr Ala Asp Asp Asp Ile Phe Ile
87         185                190                195
89 cac atg cca aat ctg att gag tac ctt caa agt tta gaa caa att ggt   1100
90 His Met Pro Asn Leu Ile Glu Tyr Leu Gln Ser Leu Glu Gln Ile Gly
91     200                205                210
93 gtt caa gac ttt tgg att ggt cgt gtt cat cgt ggt gcc cct ccc att   1148
94 Val Gln Asp Phe Trp Ile Gly Arg Val His Arg Gly Ala Pro Pro Ile
95 215                220                225                230
97 aga gat aaa agc agc aaa tac tac gtg tcc tat gaa atg tac cag tgg   1196
98 Arg Asp Lys Ser Ser Lys Tyr Tyr Val Ser Tyr Glu Met Tyr Gln Trp
99                235                240                245
101 cca gct tac cct gac tac aca gcc gga gct gcc tat gta atc tcc ggt   1244
102 Pro Ala Tyr Pro Asp Tyr Thr Ala Gly Ala Ala Tyr Val Ile Ser Gly
103         250                255                260
105 gat gta gct gcc aaa gtc tat gag gca tca cag aca cta aat tca agt   1292
106 Asp Val Ala Ala Lys Val Tyr Glu Ala Ser Gln Thr Leu Asn Ser Ser
107         265                270                275
109 ctt tac ata gac gat gtg ttc atg ggc ctc tgt gcc aat aaa ata ggg   1340
110 Leu Tyr Ile Asp Asp Val Phe Met Gly Leu Cys Ala Asn Lys Ile Gly
111     280                285                290
113 ata gta ccg cag gac cat gtg ttt ttt tct gga gag ggt aaa act cct   1388
114 Ile Val Pro Gln Asp His Val Phe Phe Ser Gly Glu Gly Lys Thr Pro
115 295                300                305                310
117 tat cat ccc tgc atc tat gaa aaa atg atg aca tct cat gga cac tta   1436
118 Tyr His Pro Cys Ile Tyr Glu Lys Met Met Thr Ser His Gly His Leu
119                315                320                325
121 gaa gat ctc cag gac ctt tgg aag aat gct aca gat cct aaa gta aaa   1484
122 Glu Asp Leu Gln Asp Leu Trp Lys Asn Ala Thr Asp Pro Lys Val Lys
123         330                335                340
125 acc att tcc aaa ggt ttt ttt ggt caa ata tac tgc aga tta atg aag   1532
126 Thr Ile Ser Lys Gly Phe Phe Gly Gln Ile Tyr Cys Arg Leu Met Lys
127         345                350                355
```

RAW SEQUENCE LISTING   DATE: 09/21/2001
PATENT APPLICATION: **US/09/945,254**   TIME: 20:48:55

Input Set : **A:\Seqlist.txt**
Output Set: **N:\CRF3\09212001\I945254.raw**

```
129 ata att ctc ctt tgt aaa att agc tat gtg gac aca tac cct tgt agg   1580
130 Ile Ile Leu Leu Cys Lys Ile Ser Tyr Val Asp Thr Tyr Pro Cys Arg
131     360                 365                 370
133 gct gcg ttt atc taatagtact tgaatgttgt atgttttcac tgtcactgag       1632
134 Ala Ala Phe Ile
135 375
137 tcaaacctgg atgaaaaaaa cctttaaatg ttcgtctata ccctaagtaa aatgaggacg 1692
138 aaagacaaat attttgaaag cctagtccat cagaatgttt ctttgattct agaagctgtt 1752
139 taatatcact tatctacttc attgcctaag ttcatttcaa agaatttgta tttagaaaag 1812
140 gtttatatta ttagtgaaaa caaaactaaa gggaagttca agttctcatg taatgccaca 1872
141 tatatacttg aggtgtagag atgttattaa gaagttttga tgttagaata attgcttttg 1932
142 gaaaatacca aatgaacgta cagtacaaca tttcaaggaa atgaatatat tgttagacca 1992
143 ggtaagcaag tttatttttg ttaaagagca cttggtggag gtagtagggg cagggaaagg 2052
144 tcagcatagg agagaaagtt catgaatctg gtaaaacagt ctcttgttct taagaggaga 2112
145 tgtagaaaaa tgtgtacaat gttattataa acagacaaat cacgtcttac cacatccatg 2172
146 tagctactgg tgttagagtc attaaaatac cttttttttgc atctttttc aaagtttaat 2232
147 gtgaacttt agaaaagtga ttaatgttgc cctaatactt tatatgtttt taatggattt  2292
148 tttttaagt attagaaaat gacacataac acgggcagct ggttgctcat agggtccttc 2352
149 tctagggaga aaccattgtt aattcaaata agctgatttt aatgacgttt tcaactggtt 2412
150 tttaaatatt caatattggt ctgtgtttaa gtttgttatt tgaatgtaat ttacatagag 2472
151 gaatataata atggagagac ttcaaatgga aagacagaac attacaagcc taatgtctcc 2532
152 ataattttat aaaatgaaat cttagtgtct aaatccttgt actgattact aaaattaacc 2592
153 cactcctccc caacaaggtc ttataaacca cagcactttg ttccaagttc agagtttttaa 2652
154 attgagagca ttaaacatca aagttataat atctaaaaca atttatttt catcaataac  2712
155 tgtcagaggt gatctttatt ttctaaatat ttcaaacttg aaaacagagt aaaaaagtga 2772
156 tagaaaagtt gccagtttgg ggttaaagca tttttaaagc tgcatgttcc ttgtaatcaa 2832
157 agagatgtgt ctgagatcta atagagtaag ttacatttat tttacaaagc aggataaaaa 2892
158 tgtggctata atacacacta cctcccttca ctacagaaag aactaggtgg tgtctactgc 2952
159 tagggagatt atatgaaggc caaaataatg acttcagcaa gagtgactga actcactcta 3012
160 aggcctttga ctgcagaggc acctgttagg gaaaatcaga tgtctcatat aataaggtga 3072
161 tgtcggaaac acgcaaaaca aaacgaaaaa agatttctca gtatacacaa ctgaatgatg 3132
162 atacttacaa tttttagcag gtagcttttt aatgtttaca gaaattttaa ttttttttcta 3192
163 ttttgaaatt tgaggcttgt ttacattgct tagataattt agaattttta actaatgtca 3252
164 aaactacagt gtcaaacatt ctaggttgta gttactttca gagtagatac agggtttttag 3312
165 atcattacag tttaagtttt ctgaccaatt aaaaaaacat agagaacaaa agcatatttg 3372
166 accaagcaac aagcttataa ttaattttta ttagttgatt gattaatgat gtattgcctt 3432
167 ttgcccatat ataccctgtg tatctatact tggaagtgtt taaggttgcc attggttgaa 3492
168 aacataagtg tctctggcca tcaaagtgat cttgtttaca gcagtgcttt tgtgaaacaa 3552
169 ttatttattt gctgaaagag ctcttctgaa ctgtgtcctt ttaattttttg cttagaatag 3612
170 aatggaacaa gtttaaattt caaggaaata tgaaggcact tcctttttttt ctaagaagga 3672
171 agttgctaga tgattccttc atcacactta cttaaagtac tgagaagagt atctgtaaat 3732
172 aaaagggttc caacctttta aaaagaagg aaaaaacttt ttggtgctcc agtgtagggc  3792
173 tatcttttta aaaatgtca acaaagggaa aataaactat cagcttggat ggtcacttga 3852
174 atagaagatg gttatacaca gtgttattgt taaaattttt ttacctttttg gttggtttgc 3912
175 atcttttttc catattgtta attttatacc aaaatgttaa atatttgtat tacttgaatt 3972
176 ttgctcttgt atggcaaaat aattagtgag tttaaaaaaa atctatagtt tccaataaac 4032
177 aactgaaaaa ttaaaaaaaa                                             4052
179 <210> SEQ ID NO: 2
180 <211> LENGTH: 378
```

RAW SEQUENCE LISTING   DATE: 09/21/2001
PATENT APPLICATION: US/09/945,254   TIME: 20:48:55

        Input Set : A:\Seqlist.txt
        Output Set: N:\CRF3\09212001\I945254.raw

```
181  <212> TYPE: PRT
182  <213> ORGANISM: Homo sapiens
184  <400> SEQUENCE: 2
185  Met Arg Met Leu Val Ser Gly Arg Arg Val Lys Lys Trp Gln Leu Ile
186   1               5                  10                  15
187  Ile Gln Leu Phe Ala Thr Cys Phe Leu Ala Ser Leu Met Phe Phe Trp
188               20                  25                  30
189  Glu Pro Ile Asp Asn His Ile Val Ser His Met Lys Ser Tyr Ser Tyr
190           35                  40                  45
191  Arg Tyr Leu Ile Asn Ser Tyr Asp Phe Val Asn Asp Thr Leu Ser Leu
192       50                  55                  60
193  Lys His Thr Ser Ala Gly Pro Arg Tyr Gln Tyr Leu Ile Asn His Lys
194  65                  70                  75                  80
195  Glu Lys Cys Gln Ala Gln Asp Val Leu Leu Leu Leu Phe Val Lys Thr
196               85                  90                  95
197  Ala Pro Glu Asn Tyr Asp Arg Arg Ser Gly Ile Arg Arg Thr Trp Gly
198               100                 105                 110
199  Asn Glu Asn Tyr Val Arg Ser Gln Leu Asn Ala Asn Ile Lys Thr Leu
200               115                 120                 125
201  Phe Ala Leu Gly Thr Pro Asn Pro Leu Glu Gly Glu Glu Leu Gln Arg
202       130                 135                 140
203  Lys Leu Ala Trp Glu Asp Gln Arg Tyr Asn Asp Ile Ile Gln Gln Asp
204  145                 150                 155                 160
205  Phe Val Asp Ser Phe Tyr Asn Leu Thr Leu Lys Leu Leu Met Gln Phe
206               165                 170                 175
207  Ser Trp Ala Asn Thr Tyr Cys Pro His Ala Lys Phe Leu Met Thr Ala
208               180                 185                 190
209  Asp Asp Asp Ile Phe Ile His Met Pro Asn Leu Ile Glu Tyr Leu Gln
210               195                 200                 205
211  Ser Leu Glu Gln Ile Gly Val Gln Asp Phe Trp Ile Gly Arg Val His
212       210                 215                 220
213  Arg Gly Ala Pro Pro Ile Arg Asp Lys Ser Ser Lys Tyr Tyr Val Ser
214  225                 230                 235                 240
215  Tyr Glu Met Tyr Gln Trp Pro Ala Tyr Pro Asp Tyr Thr Ala Gly Ala
216               245                 250                 255
217  Ala Tyr Val Ile Ser Gly Asp Val Ala Ala Lys Val Tyr Glu Ala Ser
218               260                 265                 270
219  Gln Thr Leu Asn Ser Ser Leu Tyr Ile Asp Asp Val Phe Met Gly Leu
220               275                 280                 285
221  Cys Ala Asn Lys Ile Gly Ile Val Pro Gln Asp His Val Phe Phe Ser
222       290                 295                 300
223  Gly Glu Gly Lys Thr Pro Tyr His Pro Cys Ile Tyr Glu Lys Met Met
224  305                 310                 315                 320
225  Thr Ser His Gly His Leu Glu Asp Leu Gln Asp Leu Trp Lys Asn Ala
226               325                 330                 335
227  Thr Asp Pro Lys Val Lys Thr Ile Ser Lys Gly Phe Phe Gly Gln Ile
228               340                 345                 350
229  Tyr Cys Arg Leu Met Lys Ile Ile Leu Leu Cys Lys Ile Ser Tyr Val
230               355                 360                 365
```

RAW SEQUENCE LISTING   DATE: 09/21/2001
PATENT APPLICATION: US/09/945,254   TIME: 20:48:55

Input Set : **A:\Seqlist.txt**
Output Set: **N:\CRF3\09212001\I945254.raw**

```
231 Asp Thr Tyr Pro Cys Arg Ala Ala Phe Ile
232     370             375
235 <210> SEQ ID NO: 3
236 <211> LENGTH: 1134
237 <212> TYPE: DNA
238 <213> ORGANISM: Homo sapiens
240 <220> FEATURE:
241 <221> NAME/KEY: CDS
242 <222> LOCATION: (1)...(1134)
244 <400> SEQUENCE: 3
245 atg aga atg ttg gtt agt ggc aga aga gtc aaa aaa tgg cag tta att    48
246 Met Arg Met Leu Val Ser Gly Arg Arg Val Lys Lys Trp Gln Leu Ile
247 1               5                   10                  15
249 att cag tta ttt gct act tgt ttt tta gcg agc ctc atg ttt ttt tgg    96
250 Ile Gln Leu Phe Ala Thr Cys Phe Leu Ala Ser Leu Met Phe Phe Trp
251                 20                  25                  30
253 gaa cca atc gat aat cac att gtg agc cat atg aag tca tat tct tac   144
254 Glu Pro Ile Asp Asn His Ile Val Ser His Met Lys Ser Tyr Ser Tyr
255             35                  40                  45
257 aga tac ctc ata aat agc tat gac ttt gtg aat gat acc ctg tct ctt   192
258 Arg Tyr Leu Ile Asn Ser Tyr Asp Phe Val Asn Asp Thr Leu Ser Leu
259         50                  55                  60
261 aag cac acc tca gcg ggg cct cgc tac caa tac ttg att aac cac aag   240
262 Lys His Thr Ser Ala Gly Pro Arg Tyr Gln Tyr Leu Ile Asn His Lys
263 65                  70                  75                  80
265 gaa aag tgt caa gct caa gac gtc ctc ctt tta ctg ttt gta aaa act   288
266 Glu Lys Cys Gln Ala Gln Asp Val Leu Leu Leu Leu Phe Val Lys Thr
267                 85                  90                  95
269 gct cct gaa aac tat gat cga cgt tcc gga att aga agg acg tgg ggc   336
270 Ala Pro Glu Asn Tyr Asp Arg Arg Ser Gly Ile Arg Arg Thr Trp Gly
271             100                 105                 110
273 aat gaa aat tat gtt cgg tct cag ctg aat gcc aac atc aaa act ctg   384
274 Asn Glu Asn Tyr Val Arg Ser Gln Leu Asn Ala Asn Ile Lys Thr Leu
275         115                 120                 125
277 ttt gcc tta gga act cct aat cca ctg gag gga gaa gaa cta caa aga   432
278 Phe Ala Leu Gly Thr Pro Asn Pro Leu Glu Gly Glu Glu Leu Gln Arg
279     130                 135                 140
281 aaa ctg gct tgg gaa gat caa agg tac aat gat ata att cag caa gac   480
282 Lys Leu Ala Trp Glu Asp Gln Arg Tyr Asn Asp Ile Ile Gln Gln Asp
283 145                 150                 155                 160
285 ttt gtt gat tct ttc tac aat ctt act ctg aaa tta ctt atg cag ttc   528
286 Phe Val Asp Ser Phe Tyr Asn Leu Thr Leu Lys Leu Leu Met Gln Phe
287                 165                 170                 175
289 agt tgg gca aat acc tat tgt cca cat gcc aaa ttt ctt atg act gct   576
290 Ser Trp Ala Asn Thr Tyr Cys Pro His Ala Lys Phe Leu Met Thr Ala
291             180                 185                 190
293 gat gat gac ata ttt att cac atg cca aat ctg att gag tac ctt caa   624
294 Asp Asp Asp Ile Phe Ile His Met Pro Asn Leu Ile Glu Tyr Leu Gln
295             195                 200                 205
```

VERIFICATION SUMMARY   DATE: 09/21/2001
PATENT APPLICATION: **US/09/945,254**   TIME: 20:48:56

Input Set : **A:\Seqlist.txt**
Output Set: **N:\CRF3\09212001\I945254.raw**

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date